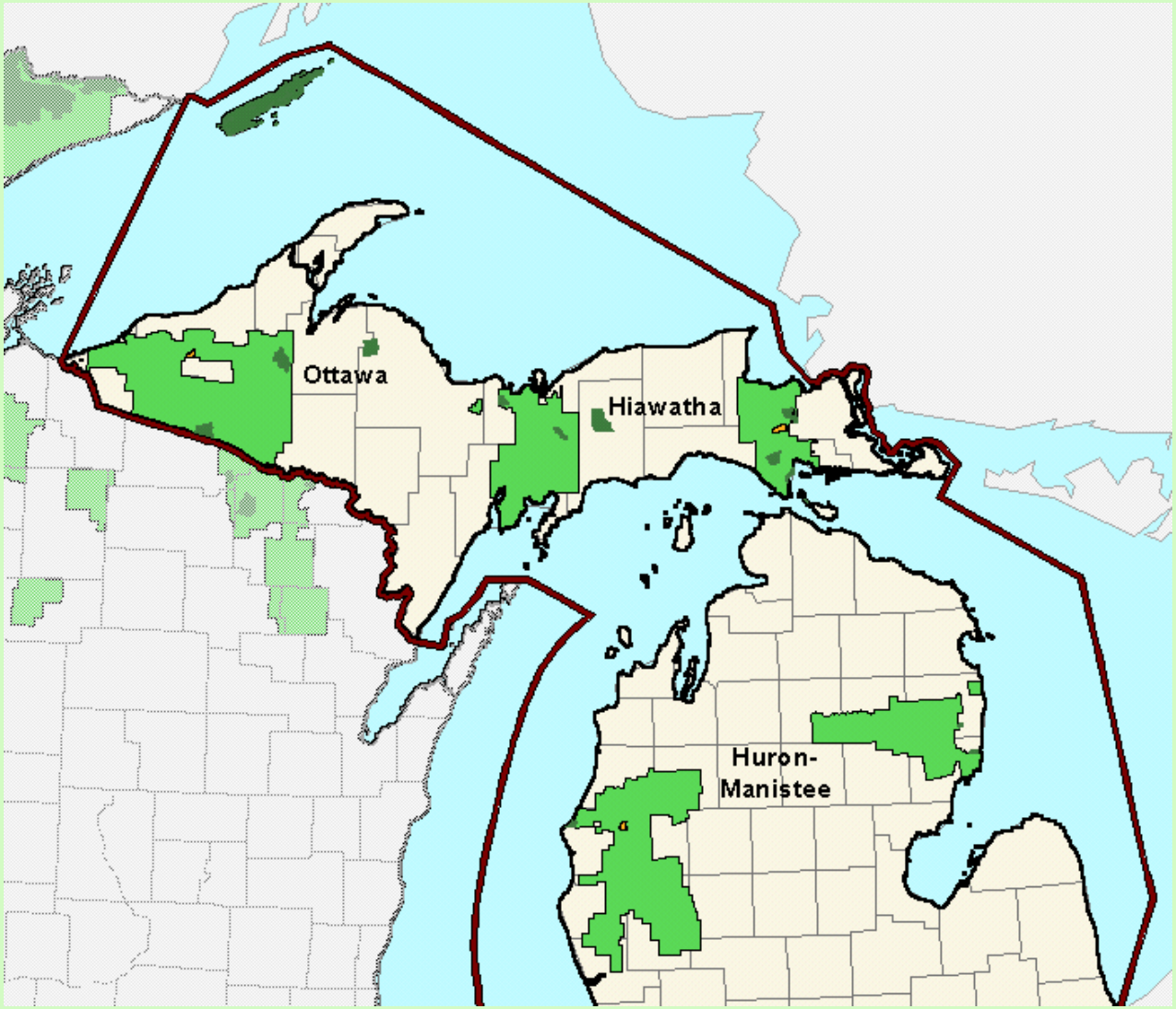
Ottawa National Forest
Native Plant Materials Program

May 2011

O·T·T·A·W·A
NATIONAL FOREST

Ottawa NF Location



Typical annual uses of plant materials on the Ottawa NF

- Seeding on roads, skid trails, landings, ditches and banks for erosion control and stabilization.
- This seeding is done mostly in timber sale areas; some seeding also occurs following road work.

Typical annual uses of plant materials on the Ottawa NF, continued

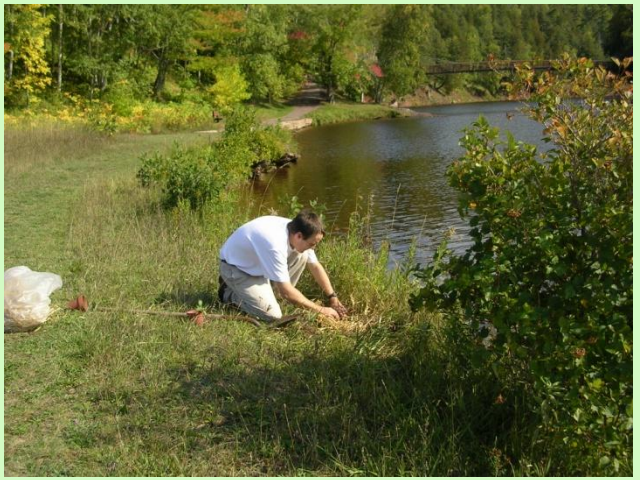
- Riparian underplanting to restore structure, mainly white pine, white spruce, hemlock, and tamarack.
- White pine planting for restoration and enhancement (blister rust resistance).

Typical annual uses of plant materials on the Ottawa NF, continued

- Occasional use of native herbs, shrubs and trees for wildlife habitat enhancement and site rehabilitation projects.
- Limited seeding by utility companies on pipeline and power line corridors that cross the Ottawa and are under special use permit.

Typical annual uses of plant materials on the Ottawa NF, continued

- Limited number of seedlings produced for active recovery programs for rare plants (dwarf bilberry, Canadian ricegrass, black hawthorn and others, varies by year).



Primary plant material users on the Ottawa NF

- Timber sale administrators (NFTM seed purchase from local co-op)
- Road equipment operators (CMRD for seed purchase)
- Biological technicians (NFWF for seed purchase)
- Botanists (NFN3 funds most work, a little NFVW)
- Road contractors and utility companies.

Amounts Used in 2010

- North Zone timber sales: 100 pounds each oats, red fescue and annual rye; 50 lbs each red and white clover.
- South Zone timber sales: 200 pounds, mix includes annual rye, alsike clover, creeping red fescue and ladino clover.
- Road C&M crew: 300 pounds, mix includes annual rye, alsike clover, creeping red fescue and ladino clover.
- Road contractors, 15 acres (quite a bit more than is typical for one year) @110 lbs/acre, or 1650 lbs, mix includes annual rye, alsike clover, creeping red fescue and ladino clover.
- Approximately 400 common milkweed plants for a meadow restoration project.
- More than 15,000 conifers for riparian underplanting.
- 50,000 white pine seedlings.
- Also, the wildlife program uses about 200 shrubs every three years and about 200 conifers every five years.

Seeding or not?

Forest Plan (2006):

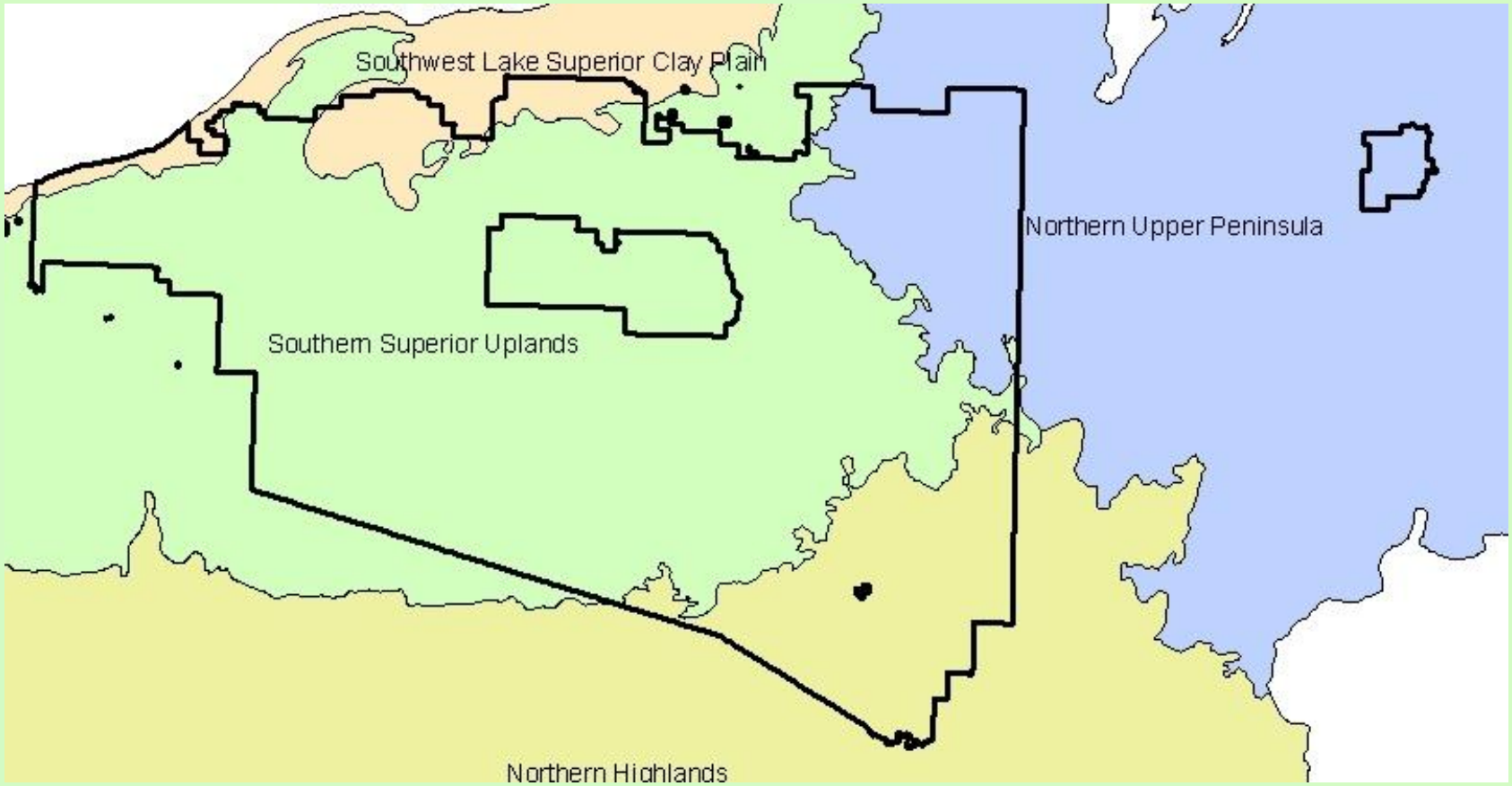
"Freshly disturbed soil areas, such as landings and unsurfaced road beds, may be left to revegetate naturally or revegetated as follows:

- Seed where non-native invasive species are expected to be primary colonizers.
- If non-native colonization potential is low, avoid seeding to favor natural regeneration of native herbs and shrubs.
- Any seeding should use a native seed mix or a non-native, non-persistent seed mix appropriate to the site."

- In timber sales, some sites are left unseeded, to allow native graminoids and forbs a chance to colonize. Some seed is needed to control erosion. Some of this seeding could be accomplished using a native seed mix, if the costs are comparable. Perhaps 50% of the seeding would be easily switched to native seed if we had it readily available.

Ottawa Seed Transfer Zone

Province: 212 Laurentian Mixed Forest
Sections: 212J Southern Superior Uplands , 212S Northern UP, 212X N. Highlands, 212Y Southwest Lake Superior Clay Plain



Ottawa Seed Transfer Zone, cont'd.

- Ottawa overlaps 4 sections yet only 77 miles across. R9 recommendation (sections) unnecessarily restrictive, hinders implementation of NPM program.
- Based on other guidelines Dorner (2002), Chicago Wilderness Group (2003), EPA (2002), Cooper (1957), and local field experience, seed transfer zones for historically common shrubs and herbs include the entire Ottawa NF except the disjunct McCormick Tract, within the natural range of the target species.
- Collection and restoration areas should be comparable in climate, soils, moisture, and other conditions.
- For listed species, historically rare species, or those restricted to rare habitats, and for McCormick, consult ONF botanists.

Graminoids we've selected for focus

Scientific Name	Common Name
Andropogon gerardii	Big bluestem (limited to certain LTAs)
Carex crinita	Fringed sedge
Cinna latifolia	Drooping woodreed
Danthonia spicata	Poverty oats
Elymus hystrix	Bottlebrush
Glyceria striata	Fowl manna grass
Hierochloe odorata	Sweetgrass
Scirpus atrovirens	Green bulrush
Schizachne purpurascens	False melic

Herbs we've selected for focus

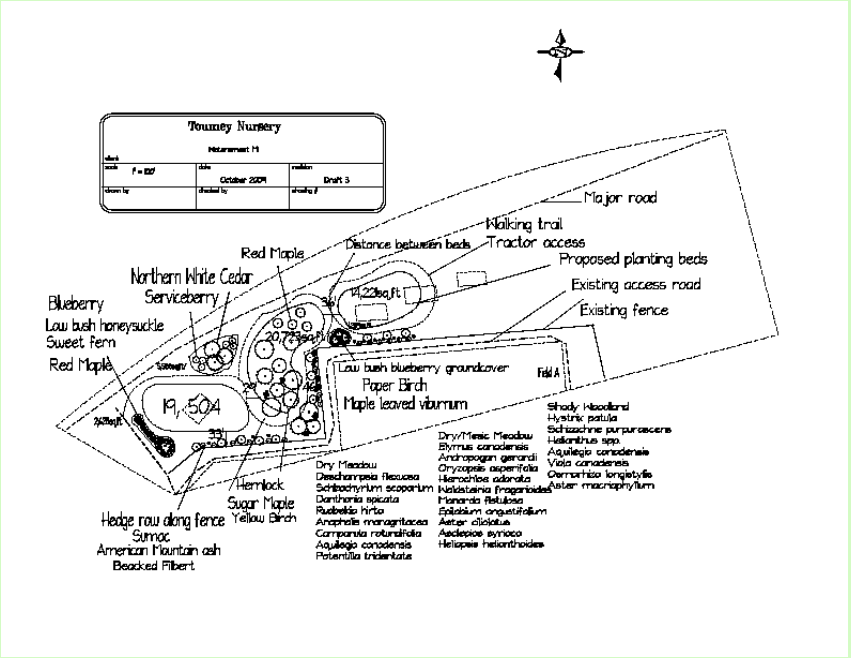
Scientific Name	Common Name
Rudbeckia hirta	Black-eyed susan
Oenothera biennis	Evening primrose
Monarda fistulosa	Wild bergamot
Solidago canadensis	Canada goldenrod
Heliopsis helianthoides	False sunflower
Aster spp.	Various asters, working on which are most useful
Asclepias syriaca, A. incarnata	Common and swamp milkweed (for monarch butterflies)
Eupatoriadelphus [Eupatorium] maculatus	Joe-pye Weed

Native Material Sources

- Trees, shrubs and herb seedlings used on the ONF are local natives, mostly obtained from JW Toumey Nursery (some transplanted direct from woods site to target site)
- Most seed the ONF uses is NOT local native material
- There are no local vendors for seed within our seed transfer zone.

Native Material Sources, continued

- Toumey Nursery has some production fields for native graminoids and forbs, but the quantity produced is limited. Toumey also has collected seed and has some in storage for Forest use. There are plans to expand the native plant production beds at Toumey, but the timing and details are not yet clear.



Native Material Sources, continued

- 2006: workshop for local farmers, gardeners and others, showing how to grow native graminoids.
- Provided small quantities of native graminoid seed to attendees who specified an interest in providing native seed for future NF contracts.
- A couple seed recipients planted and reported on their seed; most did not, and interest has waned.
- Thus no vendors for the quantities of local native seed needed to meet road and timber program needs.
- One potential seed vendor in Marquette, Michigan, who could perhaps meet part of the need.

Native Material Sources, continued

- One vendor in Washburn, Wisconsin, has and could again grow selected herbs from our local seed. Her seedling services could meet plant material needs for rare plant recovery projects, herbs for small restoration projects, and wetland plants for future rain gardens, but she is not able to provide quantities of seed as needed by the ONF.

Native Material Sources, continued

- In 2010, we tried to use seed collection contracts to meet our seed needs. We received only one bid in response to our solicitation, and it was well above government estimate. We instead used seasonal employees and full-time staff for some seed collection.

Native Plants and Pollinator Gardens

The Ottawa has five small upland administrative site gardens. Seed production from these fledgling gardens is limited, and they are not designed for production of “workhorse” native plant species.

Visitor Center Upland Garden

- Established 1999 (Nat’l Public Lands Day)
- Features sun, mesic soil species
- Includes labels for each species
- Attracts many butterflies in mid-late summer

Native Gardens, continued

Bergland Garden

- At former District Office
- Established and maintained mainly by volunteers with some help from ONF
- Begun 2008, continuing to add species
- Features shade and sun species, shrubs, ferns, grasses and wildflowers
- Includes labels for each species

Native Gardens, continued

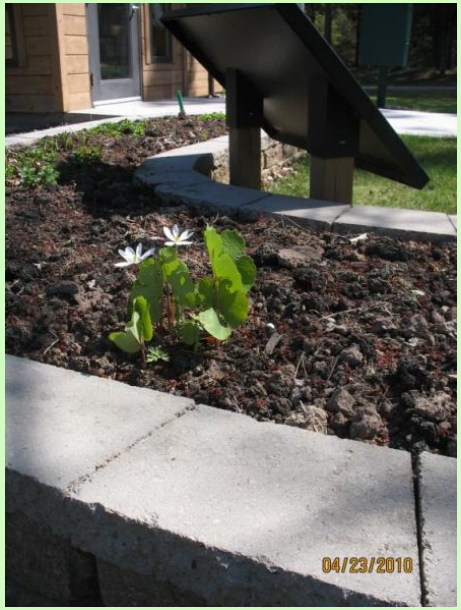
Kenton Garden

- Established 2002, moved to present location 2009
- Features sun and dry soil (sand) species
- New species being added, and labels will be added later

Native Gardens, continued

Ontonagon Garden

- Planted 2009, more species being added in 2010
- Features local wildflowers, some needing shade
- A district project with minimal help from Botany Program



Native Gardens, continued

Clark Lake Planter

•At Clark Lake day use area on the edge of Sylvania Wilderness

•Planted 2010

•Features local wildflowers and ferns, particularly pairs that are look-alikes, to demonstrate small differences

•Garden established by Friends of Sylvania volunteers

Native Gardens, continued

Visitor Center Rain Garden

- Located between Visitor Center and District
- Planted 2010
- Features wetland species that can tolerate some flooding
- Garden designed to slow water flow from runoff
- Seedlings grown from seed collected on Ottawa, over 2000 planted in early June 2010

Other Native Plant Projects

- 12 Dutch Elm Disease-resistant American Elms (Princeton cultivar) received, 6 planted at Kenton and 6 at Ontonagon District Office
- Interpretive signs will be placed at each site this spring

Other Native Plant Projects, continued

Over 400 *Asclepias syriaca* (common milkweed) seedlings planted at Black River Harbor meadow. This meadow is full of knapweed and smooth brome, and we are working on restoration. We plan to add more milkweed as well as evening primrose, black-eyed susan, wild bergamot and big bluestem.

Other Native Plant Projects, continued

•Watersmeet old admin site being decommissioned; pines, spruce, shrubs to be planted May-June 2011 along with meadow area with milkweed

•Baraga Plains project: small openings to be burned or mechanically treated to prep for planting *Vaccinium cespitosum* (dwarf bilberry) and *Oryzopsis canadensis* (Canada mountain rice-grass).

•Toumey field expansion mentioned above

Interpretation

•Pollinator and native plant signs at 4 upland gardens (thanks H-M !)

• Rain garden sign (Pannier Graphics)

•Plants have individual labels at 3 gardens, working on rest, some will include Ojibwe name for plants

•Kiosk for posters and flyers at Bergland garden

•Elm project-signs at both sites

•Presentations at Visitor Center -growing native plants, rain gardens; pollinator presentation this summer

•Presentation at Bergland Garden/dedication

•Wildflower hikes with North Woods Native Plant Society, other groups

•Butterfly brochure

Partners

•Garden volunteers: Bergland Cultural/Heritage Center and Friends of Sylvania
•Local gardeners: contracts for garden maintenance
•Native plant grower: Becky Brown, Wildflower Woods, Washburn, WI
•Toumey Nursery
•Students on service-learning trips (St. Norbert's)

Potential Partners/Cooperators

•Keewenaw Bay Indian Community Tribe (new greenhouse, starting up native plant program) ?
•Gogebic Community College ?
•YCC Crew ?
•County 4H and Extension ?
•Conservation Districts (we work with them on weed issues mostly) ?

Possible Future NPM Uses

- Plant materials for planting or seeding following invasive plant control treatment
- Tree seedlings for fill-in planting after ash trees are removed during response to an emerald ash borer infestation (research project starting this year)
- Wetland species for rain gardens at administrative sites
- Convert large expanse of lawn at Visitor Center to native meadow
- Species to be planted under assisted migration strategies for climate change response

Challenges and Impediments, continued

- Ottawa is in area with low population density, few volunteers to tap.
- Few bidders for seed collection
- NPM work has used mainly NFN3 funding; other programs tight for funds, show little interest in chipping in. NFVW shared among several programs, hard to get buy-in to fund native plant work (watershed, soils, Nursery, TSI, weeds programs).
- Staff time: Forest project priority list puts native plant work near bottom ; 2 fulltime botanists
- Despite national and regional direction for use of native plant material, there is little buy-in from line officers (need to present at FLT later this year)
- No target accomplishment achieved from this work so harder to get support

Challenges and Impediments

•Biggest challenge is obtaining sufficient quantities of local native herb seed at reasonable price to provide to Timber and Roads programs—we do not have local vendors and we do not have enough produced at Toumey or in storage. The western Upper Peninsula area is not conducive to much agriculture; there are few farmers in the area that might grow graminoids under contract.

JW TOUMEY NURSERY

"GROWING TREE SEEDLINGS FOR THE GREAT LAKES STATES SINCE 1935"

- Produces bareroot and containerized tree seedlings and native plants for 7 NFs in Lake States
- Approx. 3.8 million seedlings raised, distributed annually; total inventory near 8 million. Mainly red, jack, white pine, spruce, N. red oak.
- 2 @140ft. greenhouses, which produce approx. 250 thousand containerized seedlings annually.
- 1 smaller greenhouse used for superior tree grafting and propagation of cuttings.
- 110 acres, 60 acres currently available for planting.

JW TOUMEY NURSERY, cont'd.

- Can provide native plant seed cleaning services and seed storage. Seed cleaning rates: $50/seed lot (less than 20 lbs uncleaned) and $2/lb for each additional pound over the first 20 lbs.
- Can grow container stock and plugs from supplied seed. Have done experimental propagation trials for ONF and successfully propagated rare species.
- Limited greenhouse space (mostly used for trees and shrubs); more shadehouse space available.
- Contact Christy Makuck for more information 906-358-4523 ext 11.

And see the Nursery webpage, linked to Ottawa web page.

Questions?